



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,821	11/21/2006	Xavier Meynial	0526-1133	5479
466	7590	12/26/2007	EXAMINER	
YOUNG & THOMPSON			PAUL, DISLER	
745 SOUTH 23RD STREET			ART UNIT	PAPER NUMBER
2ND FLOOR			2615	
ARLINGTON, VA 22202			MAIL DATE	DELIVERY MODE
			12/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/593,821	MEYNIAL, XAVIER	
	<b>Examiner</b>	<b>Art Unit</b>	
	Disler Paul	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,2,4,6-12,14,16 and 18 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_\_ is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/22/06</u>   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-2,4,8-10-11,14,18 are rejected under 35 U.S.C. 102(a) as being anticipated by Keele, Jr (US 2004/0240697).

RE claim 1, Keele , Jr. disclose of the public address system allowing uniform sound coverage over a zone to be addressed, comprising a network of electroacoustic sources, each electroacoustic source diffusing a version delayed by a delay , filtered by a filter, and amplified by an input signal amplifier of the system (fig.20; par[0007,0071-0072,0103]), characterized in that said network is essentially rectilinear and vertical (fig.2;5,7,10,23-24/multiple rectilinear and vertical networks may be used), in that the angles formed by the axes of emission of the electroacoustic sources and the normal line to the network are such that angleN >angle N-1, where n is the index of the electroacoustic sources numbered in increasing order from top to bottom of the system, and in that the delays work with the angles .theta. such that the system generates a wave front of the

shape corresponding to the desired sound coverage of the zone to be addressed (par[0068]; table 1 wt (Ax)).

Re claim 2, the System according to claim 1, wherein the angles of inclination of the electroacoustic sources are chosen such that for each of the electroacoustic sources, the distance separating the center of said electroacoustic source from the point of intersection between the axis of emission of said electroacoustic source and the desired wave front is minimal (fig.21; Table 1; par[0075]/to determined the attenuation for speaker).

Re claim 4, the System according to claim 1, wherein the electroacoustic sources are direct radiation loudspeakers (par[0004]).

RE claim 8, the System according to claim 1, wherein the electroacoustic sources are groups of loudspeakers (fig.1,20-21).

Re claim 9, the System according to claim 8, wherein the loudspeakers of the same group are adjacent, located in the same plane, and combined such that the group radiates essentially as a rectangular piston would in the frequency band under consideration

(fig.1; par[0066]/the speakers as group would have created high constant frequency band as would with rectangular piston).

Re claim 10, the system according to claim 1, wherein the electroacoustic sources are fixed on the same speaker (fig.20).

Re claim 11, the System according to claim 1, wherein the electroacoustic sources (1) are attached to speakers that are mechanically connected to one another (fig.20-21; 1 wt (102-136)/mechanically attached).

Re claim 14, the System according to claim 2, wherein the electroacoustic sources are direct radiation loudspeakers (par[0004]).

Re claim 18, the System according to claim 2, wherein the electroacoustic sources are groups of loudspeakers (fig.20-21).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6-7,16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keele, Jr (US 2004/0240697) and further in view of Adamson (US 6,628,796 B2).

Re claim 6, the System according to claim 1, However, Keele, Jr. fail to disclose of the wherein the electroacoustic sources are loudspeakers radiating through waveguides. However, Adamson disclose of a system wherein the electroacoustic sources are loudspeakers radiating through waveguides (fig.3; col.10 line 50-60) for the purpose of permitting the formation of nearly continuous ribbon of high frequency acoustical energy which does not suffer from acoustical interference between the individual element array. Thus, taking the combined teaching of Keele, Jr. and Adamson as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have modify Adamson by incorporating the electroacoustic sources are loudspeakers radiating through waveguides for the purpose of permitting the formation of nearly continuous ribbon of high frequency acoustical energy which does not suffer from acoustical interference between the individual element array.

RE claim 7, the System according to claim 6, wherein each waveguide radiates through an essentially rectangular orifice such that the particular acoustic velocity is at any instant essentially

the same at any point of the radiation orifice (col.10 line 35-50/to provide smooth passage without interferece form reflecting wave).

Re claim 16 has been analyzed and rejected with respect to claim 6 above.

Re claim 5, the System according to claim 4, However, Keele, Jr. fail to disclose of the wherein the loudspeakers are equipped with essentially rectangular membranes. However, Adamson disclose of the system wherein the loudspeakers are equipped with essentially rectangular membranes (fig.1,3; col.6 line 28-32 & line 55-61) for the purpose of permitting smooth high frequency sound in the cross sectional shape of the passageways. thus, taking the combined teaching of Kelle, Jr. and Adamson as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have modify Keele, Jr. by incorporating the loudspeakers are equipped with essentially rectangular membranes for the purpose of permitting smooth high frequency sound in the cross sectional shape of the passageways.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keele, Jr (US 2004/0240697) and further in view of official Notice.

Re claim 12, the system according to claim 1 with the electroacoustic sources. However, Keele Jr. fail to disclose of the specific wherein the electroacoustic sources are of different heights. However, official notice is taken the concept of having the electroacoustic sources are of different heights is simply the designer's preference, thus it would have been obvious for one of the ordinary skill in the art to have modify Keele Jr. by incorporating the electroacoustic sources are of different heights for easily mechanically dockets the electroacoustic sources.

***Allowable Subject Matter***

6. Claims 3,13,15,17,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-272-2222. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/593,821  
Art Unit: 2615

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DP



VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2000